REMARKS/ARGUMENTS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1, 3, 11, 18, 20, and 22 are presently active. Claims 2, 4-10, 12-17, 19, 21, and 23-39 are withdrawn.

In the outstanding Office Action, Claims 1, 3, 11, 18, 20, and 22 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Pat. No. 6,367,412 to Ramaswamy et al.

The Office Action asserts that Ramaswamy et al teach a passive component configured to erode when exposed to a plasma process and teach an active component included as a part of the passive component.

To this assertion, Applicants respectively point out that Ramaswamy et al do not explicitly disclose that the porous ceramic liner erodes when exposed to a plasma source.

In the first embodiment of Ramaswamy et al, the porous ceramic sleeve is taught (without a catalyst material) as part of a plasma tube that can be used in either a plasma abatement or remote plasma source. The porous ceramic tube (associated in the Office Action with the passive material) is specifically taught to be made of a material that should be resistant to the particular etching chemistry. For example, Ramaswamy et al disclose that, for fluorine-based etching applications, quartz (SiO_2) should not be used because it will be etched by a fluorine plasma.. See column 4, lines 44-46. Hence, the porous ceramic liner of Ramaswamy et al (without a catalyst material) is not configured to erode, as asserted in the Office Action.

In the second embodiment of Ramaswamy et al, a metal catalyst is infiltrated into the pores of the liner. See column 5, lines 37-44. In this embodiment, Ramaswamy et al teach that plasma species diffuse into the pores and therefore can react with the catalytic material. Ramaswamy et al disclose specifically that:

> Porous matrices for catalyst have the additional advantage of having an extremely large effective surface area. Because catalysis is primarily a surface effect, the increased surface area increases the catalyzed reaction rate. It is noted that even though a plasma is not supported within the pores, the plasma species, particularly the radicals, once they have been produced, can still diffuse into the pores.[1]

There is no disclosure in Ramaswamy et al with regard to the catalytic material infiltrated porous ceramic sleeve that the ceramic material (associated in the Office Action with the passive material) is configured to erode in plasma.

In the last embodiment, Ramaswamy et al teach that porous ceramic liners can be used inside curved dielectric domes proximate an induction coil where erosion is prone to occur, as described by Lu et al (U.S. Pat. No. 5,904,778). Yet, there is no disclosure in Ramaswamy et al that the ceramic liners when placed in the dielectric dome would erode. Moreover, even if for the sake of argument it is assumed that a porous ceramic liner of Ramaswamy et al would erode when placed inside the dielectric domes of Lu et al, there is no disclosure in Ramaswamy et al for placing a catalytic material infiltrated porous ceramic sleeve inside the dielectric domes of Lu et al. Indeed, the process in Lu et al is directed to the production of ultrahigh purity silicon carbide. See Abstract. More specifically, Lu et al disclose that:

> The invention thus provides parts particularly useful in plasma reactors that are relatively inexpensive, easily shaped, ***present minimal contamination*** problems, can be used as silicon scavengers in fluorine etch processes, have electrical characteristics that can be advantageously controlled, and yet will enjoy a longer life and are economical consumable components.[2] [emphasis added]

Thus, in view of Lu et al, it would be unreasonable to assume that Ramaswamy et al's teaching of using a porous ceramic liner inside the dielectric domes of Lu et al is a teaching of using a catalytic material infiltrated porous ceramic liner inside the dielectric domes of Lu

[1] Ramaswamy et al, column 5, lines 45-52.
[2] Lu et al, column 13, line 62, to column 14, line 1.

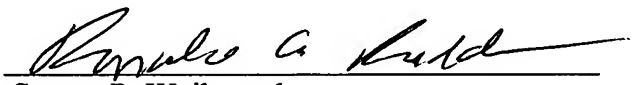
et al, as placing the catalytic material inside the dielectric domes of Lu et al would lead to contamination of the SiC growth process in Lu et al.

Hence, it is respectfully submitted that independent Claims 1 and 18 (and the claims dependent therefrom) patentably define over the cited art of record. Accordingly, it is requested that Claims 2, 4-10, 12-17, 19, 21, and 23-26 (which depend from either Claim 1 or Claim 18) be rejoined and allowed.

Consequently, in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Steven P. Weihrouch
Attorney of Record
Registration No. 32,829

Ronald A. Rudder, Ph.D.
Registration No. 45,618

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)

I:\ATTY\RAR\AMENDMENTS (2006)\240720US\REPLY TO OA_06012006.DOC